

* SWBAT explain how temperature relates to size and molecule motion

Sep 6-2:31 PM

Welcome!!!

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WBL ALC Physics
Wednesday 16 December 2015

- * Sign in
- * Pick up:
 - worksheet
 - slip of paper (for later)



Opening question: **Worksheet**

New unit: Heat and Temperature

Let me know what you already know...

Sep 7-7:04 AM

Topic: Heat and size

Essential Q: What does temperature mean and how does it affect the size of something?

Heating metal ball... **HOTTER BALL GOT BIGGER & DIDN'T FIT IN RING**

http://www.youtube.com/watch?v=cr1p9_jhT864

Balloons in the cold!

COLDER BALLOON GOT SMALLER, BUT WENT BACK WHEN BROUGHT INSIDE

<http://www.youtube.com/watch?v=f5m-rTHagQ>

Eureka 19

**EXPAND & CONTRACT:
HOW COME?**

- MOLECULES = LITTLE BITS
- WIGGLING/VIBRATING
- MORE ENERGY = BOUNCE MORE

Heat \Rightarrow KINETIC ENERGY OF MOLECULE MOTION

SIMULATOR:

<http://phet.colorado.edu/en/simulation/gas-properties>

A way of thinking about temperature...

ALL THE SAME SPEED? NO

ADD HEAT \Rightarrow WENT FASTER, BUT STILL SOME SLOWER

TEMP \Rightarrow AVERAGE KINETIC ENERGY OF THE MOLECULES

Summary: Answer the "Essential Question"

- based on today's class
- using new terms (temperature, heat, molecule)
- one or more complete sentences

Dec 14-7:13 AM

Daily 3 Questions

- * Every day except test/project days
- * 3 Questions on the topics of the day
- * Main source of daily points
- * I am happy to give credit when I have no concerns about someone giving or getting help with the answers.

You can't get your points if you don't have your NAME!!!

Name

Period

1.

2.

3.

Sep 9-7:32 AM

1. When we raised the temperature of the metal ball, what happened to its size?

- ☒ A. got bigger
- ☐ B. didn't change size
- ☐ C. got smaller

2. When balloon went outside in the cold, what happened to the size of the air inside it?

- ☐ A. got bigger
- ☐ B. didn't change size
- ☒ C. got smaller

3. This is because higher temperature means the molecules are

- ☐ A. moving slower on average
- ☐ B. moving the same on average
- ☒ C. moving faster on average

Dec 2-7:55 AM